

Serial No.: 09/647,518
Group Art Unit No.: 1641

IN THE CLAIMS:

Please cancel Claims 2-3, 18-24, 29-33, 35-37 and 40-41 without prejudice. Please also amend Claims 1, 4-17, 25-28, 34 and 38-39 as follows:

b1
1. (Amended) A method of raising an immune response in an individual against an antigen or antigenic composition, comprising administering intranasally to said individual a vaccine composition comprising an adjuvant composition and an antigen or antigenic composition; wherein the adjuvant composition is selected from the group consisting of: a non-vesicular aqueous solution and a suspension of a surfactant of formula (I):



wherein, n is 1-50, A is a bond or $-\text{C}(\text{O})-$, R is C₁₋₅₀ alkyl or Phenyl C₁₋₅₀ alkyl.

4. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the surfactant of formula (I) is haemolytic.

5. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the adjuvant composition is characterized in that the surfactant of formula (I) is not in the form of a vesicle and also in that the degree of haemolytic activity is in the range of 0.05-0.0001% as measured in the Guinea Pig blood haemolysis assay.

b2
6. (Amended) A method of raising an immune response as claimed in Claim 4 or Claim 5, wherein the surfactant of formula (I) has a haemolytic activity within a ten fold difference to that of polyoxyethylene-9 lauryl ether or polyoxyethylene-8 stearyl ether, as measured in the Guinea Pig blood haemolysis assay.

7. (Amended) A method of raising an immune response as claimed in any one of the Claims 1 and 4-6, using an adjuvant that is a surfactant of formula (I), wherein n is 4 to 24.

8. (Amended) A method of raising an immune response as claimed in any one of

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Claims 1 and 4-7, wherein the adjuvant that is a surfactant of formula (I), wherein R is C₈₋₂₀ alkyl or Phenyl C₈₋₂₀ alkyl.

9. (Amended) A method of raising an immune response as claimed in Claim 1 wherein n is 9, A is a bond or -C(O)-, R is C₁₋₅₀ alkyl or Phenyl C₁₋₅₀ alkyl and is characterized in that the surfactant of formula (I) is not in the form of a vesicle.

10. (Amended) A method of raising an immune response as claimed in Claims 8 or 9, wherein R is C₁₂ alkyl.

11. (Amended) A method of raising an immune response as claimed in Claim 1 wherein n is 8, A is a bond or -C(O)-, R is C₁₋₅₀ alkyl or Phenyl C₁₋₅₀ alkyl and is characterized in that the surfactant of formula (I) is not in the form of a vesicle.

12. (Amended) A method of raising an immune response as claimed in Claim 11, wherein R is C₁₈ alkyl.

13. (Amended) A method of raising an immune response as claimed in Claim 1, comprising a surfactant of formula (I), wherein A is a bond, thereby forming an ether.

14. (Amended) A method of raising an immune response as claimed in Claim 1 comprising a surfactant of formula (I), wherein A is -C(O)-, thereby forming an ester.

15. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the polyoxyethylene ether or ester of formula (I) is selected from a group consisting of: polyoxyethylene 9-lauryl ether, polyoxyethylene-9-lauryl ester, polyoxyethylene-9-stearyl ether, polyoxyethylene-8-stearyl ether, polyoxyethylene-4-lauryl ether, polyoxyethylene-35-lauryl ether and polyoxyethylene-23-lauryl ether.

b2

16. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the concentration of the surfactant is in the range of 0.1-10%.

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*b2
cont*
p2
N.E.
17. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the concentration of the surfactant is in the range of 0.25-1%.

N.E.
25. (Amended) A method of raising an immune response as claimed in Claim 1, further comprising an antigen or antigenic composition.

N.E.
26. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the antigen or antigen composition is derived from the group consisting of: Human Immunodeficiency Virus, Varicella Zoster virus, Herpes Simplex Virus type 1, Herpes Simplex virus type 2, Human cytomegalovirus, Dengue virus, Hepatitis A, B, C or E, Respiratory syncytial virus, human papilloma virus, Influenza virus, Hib, Meningitis virus, Salmonella, Neisseria, Borrelia, Chlamydia, Bordetella, Streptococcus, Mycoplasma, Mycobacteria, Haemophilus, Plasmodium or Toxoplasma, IgE peptides such as the stanworth decapeptide and Tumor associated antigen (TMA) such as MAGE, BAGE, GAGE, MUC-1, Her-2 neu, LnRH, CE^A, PSA, KSA, or PRAME.

N.E.
27. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the vaccine comprises polyoxyethylene-9 lauryl ether and an influenza virus antigen.

N.E.
28. (Amended) A method of raising an immune response as claimed in Claim 1, wherein the vaccine is in the form of an aerosol or a spray.

b3
34. (Amended) A spray device, more particularly a bi-dose spray device, filled with a vaccine suitable for use in the method of raising an immune response as claimed in Claim 1.

N.E.
38. (Amended) A method of treatment, using the method of Claim 1, of a mammal suffering from or susceptible to a group of diseases consisting of: a pathogenic infection, cancer and allergy, comprising the intranasal administration of a safe and effective amount of a vaccine composition according to Claims 25-28.